REMARKS

This Amendment is submitted in response to the Office Action mailed on September 7, 2004. With this Amendment, claim 4 has been canceled, claims 1 and 3 have been amended, and new claims 5-15 have been added. As of entry of this Amendment, claims 1-3 and 5-15 remain in the above-identified application.

Though claim 4 is canceled via this Amendment, Applicants continue to believe claim 4 is allowable, as originally presented in the above-identified application. Likewise, though claims 1 and 3 are amended via this Amendment, Applicants continue to believe claims 1 and 3 are allowable, as originally presented in the above-identified application. Therefore, Applicants are canceling claim 4 and amending claims 1 and 3 without prejudice to Applicants' right to pursue claims worded like claims 1, 3, and 4, as originally presented, in the above-identified application or in a continuation application based on the above-identified application. Furthermore, no claim amendment made herein is related to any statutory patentability requirement unless expressly stated herein. Also, no claim amendment made herein is made for the purpose of limiting (narrowing) the scope of any claim.

Election/Restriction Requirement

In the Office Action, the Examiner recited a restriction requirement versus the invention of the above-identified application, as defined in claims 1-4:

> 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
> I. Claims 1-3, drawn to an article, classified in class 428, subclass 421.
> II. Claim 4, drawn to a method, classified in class 156, subclass 247.
> The inventions are distinct, each from the other because of the following reasons:
>
> 2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or; (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f). In the instant case, the process as claimed can be used to make a materially different product, such as one in which the water-repellent layer does not contain a fluorocarbon-based polymer binder and/or a fluorocarbon-based resin powder.

> 3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

The Examiner then noted claim 4 stands withdrawn from consideration in the above-identified application as being drawn to a non-elected invention. The Examiner withdrew claim 4 from consideration based on a provisional election to prosecute the invention of Group I, claims 1-3, made with traverse by Mr. James D. Christoff during a teleconference with the Examiner on August 23, 2004.

In response to the present Office Action, Applicants confirm Mr. Christoff's election to prosecute the invention of Group 1 in the above-identified application. This election is made without traverse.

Acknowledgement of Receipt of Priority Papers

In the present Office Action, the Examiner acknowledged receiving priority papers filed by Applicants: "5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file." Applicants appreciate this acknowledgement provided by the Examiner. Based on this statement of the Examiner, no further action is believed necessary with regard to establishing the claim of priority of the above-identified application to Japanese application no. 2002-268718 filed on September 13, 2002.

Examiner's Statement About Information Disclosure Statement

In the present Office Action, the Examiner provided the following comments with regard to the Information Disclosure Statement filed on or about December 29, 2003:

> 6. Reference JP 10-88061 in the Information Disclosure Statement filed 29 December 2003, has been crossed out because a copy of the reference was not provided as required by 37 C.F.R. 1.98(a)(2). It is noted that a copy of reference JP 64-88061, directed to a control device for freezer cycle, was provided but not cited in any form PTO-1449. It appears that the applicant intended to make JP 10-88061 of record but mistakenly submitted JP 64-88061. Therefore, the Examiner has cited the English abstract JP 10-88061 on form PTO-892 to make the reference part of the record.

To rectify this oversight, Applicants have enclosed for filing a Supplemental Information Disclosure Statement that specifically cites JP 10-88061along with the English abstract of JP 10-88061. JP 64-88061 was submitted in error.

Claim Rejection Under 35 U.S.C §103 Based on the Spain patent and the Schramm patent

In the Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. §103(a) as allegedly being obvious considering U. S. Patent No. 5,203,941 to Spain et al. ("the Spain patent") in view of U.S. Patent No. 3,859,120 to Schramm ("the Schramm patent). In support of this rejection, the Examiner alleged one skilled in the art would be motivated to use the coating composition disclosed in the Schramm patent to form the top coat disclosed in the Spain patent::

> Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spain et al. (U.S. Patent 5,203,941) in view of Schramm (U.S. Patent 3,859,120).
>
> Spain et al. is directed to a weatherable plastic siding panel (column 1, lines 11-19). The panel comprises a top coat, print coat layers, and an extruded film (Figure 5). The print coat layers and/or extruded film read on the base layer of the instant claims. The top coat is formed by coating an outdoor weatherable protective clear coat, preferably a blend of an acrylic polymer and polyvinylidene fluoride, onto matte release coat and carrier film (column 6, lines 6-37). The matte release coat and/or carrier film read on the protective film of the instant claims. The matter release coat and carrier film are stripped from the top coat to form the finished panel (column 3, lines 20-40).
>
> Spain et al., do not teach the present of a fluorocarbon-based resin powder in the top coat composition. However, the composition is taught to comprise a clear and weatherable blend of an acrylic polymer and polyvinylidene fluoride.
>
> Schramm is directed to a clear coating composition containing fluorocarbon polymer particles (column 1, lines 10-13). The coating further comprises a binder component that may be a blend of an acrylic polymer and a vinylidene fluoride containing polymer (column 1, lines 52-64). The combination of particles and binder yields a finish having excellent weatherability and will not crack, craze, chip or peel even after long periods of outdoor exposure (column 2, lines 19-28).
>
> One skilled in the art would be motivated to use the coating composition of Schramm to form the top coat of Spain et al, because it has excellent weatherability and will not crack, craze, chip or peel even after long periods of outdoor exposure.

A proper finding of obviousness requires that the cited references, taken as a whole, teach, suggest or disclose the claimed invention. Custom Accessories v. Jeffrey-Allen Ind., 807 F.2d 955, 959 (Fed. Cir. 1986). Despite the Examiner's comments in support of this rejection, the Spain patent and the Schramm patent, either separately or in any combination, do not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claims 1-3.

Independent claim 1 reads as follows:

> *1. (Amended) A water-repellent sheet with a protective film, which comprises:*
> *a base layer;*
> *a water-repellent layer disposed on the base layer; and*
> *a protective film bonded to the water-repellent layer such that the water-repellent layer is between the protective film and the base layer, wherein the water-repellent layer contains a fluorocarbon-based polymer binder and a fluorocarbon-based resin powder dispersed in said fluorocarbon-based polymer binder.*

Independent claim 1 thus requires a water repellent layer located between a base layer and a protective film. Furthermore, per claim 1, the water-repellent layer contains a fluorocarbon-based polymer binder and a fluorocarbon-based resin powder that is dispersed in the fluorocarbon-based polymer binder.

As the Examiner at least implicitly admits, neither the Spain patent nor the Schramm patent discloses the water repellent layer of claim 1 that contains both (1) a fluorocarbon-based polymer binder and (2) a fluorocarbon-based resin powder that is dispersed in the fluorocarbon-based polymer binder. In an attempt to arrive at an art-based explanation that replicates this requirement of claim 1, the Examiner suggests that it would be obvious to take the coating disclosed in the Schramm patent and substitute the Schramm coating in place of the top coat that is disclosed in the Spain patent.. However, there are several reasons evident from the Spain patent and the Schramm patent why such a substitution is not taught or suggested by the art, despite the Examiner's suggestion to the contrary.

The Spain patent is directed to extruded plastic siding panels that are used for surfacing outside structures, such as frame buildings. (Col. 4, lines 21-32). The extruded plastic siding panels include an embossed, decorative wood grain finish. (Col. 4, lines 17-19). The embossed, decorative wood grain finish is prepared by applying a layered preparation on the extruded plastic siding panels in a way that simultaneously (1) transfers dry paint to the extruded

plastic siding panels and (2) embosses the extruded plastic siding panels to yield a three-dimensional wood grain on the extruded plastic siding panels. (Col. 4, lines 38-64).

The layered preparation that is applied to the extruded plastic siding panels is made by first placing a thin coating of a matte release coat 24 on a flexible, foldable carrier film 26. (Col. 5, lines 57-61). A top coat 38 that may contain an acrylic/polyvinylidene fluoride blend is applied onto the matte release coat 24 to form a dried, coated film 41 that is wound onto a rewind roll 42. (Col. 6, lines 6-40). The dried, coated film 41 is then .unwound from the roll 42, and first and second print coats are sequentially applied to the top coat 38 in the form of a simulated wood grain pattern. (Col. 6, lines 54-67). A size coat 62 is then applied to the print coats to support adhesion of the layered preparation to a backing sheet or, during the above-noted transfer and embossing step, to the extruded plastic siding panels (extruded sheet 12). (Col. 7, lines 40-62).

During the transfer and embossing step, mechanical pressure replicates the micro-roughness texture of the matter release coat 24 and gives the top coat 38 the appearance of a matte finish. (Col. 9, lines 6-11). After the transfer and embossing step, the carrier film 26 and associated matte release coat 24 are removed from the top coat 38. (Col. 8, lines 62-64). The Spain patent specifies that the matte release coat 24 is permanently bonded to the carrier film 26 and remains adhered to the carrier film 26 as the carrier film 26/matte release coat 24 are removed from the top coat 38. (Col. 9, lines 3-5).

The Spain patent states the formulation of the matte release coat 24 allows the matte release coat to freely release from the top coat 38 upon stripping of the carrier film 26/matte release coat 24 from the top coat 38:

> The formulation of the matte release coat (described below) provides a combination of the desired low gloss surface, together with a smooth or free release of the carrier sheet from the replicated low gloss surface at elevated stripping temperatures.

(Col. 9, lines 12-16). Further details about the free release of the matte release coat 24 from the top coat 38 are provided:

> The matte release coat formulation also includes a release agent to enhance freely releasing the carrier and its matte release coat from the top coat during the transfer process.

(Col. 10, lines 21-24).

The Schramm patent is directed to a coating composition made of a film-forming binder containing dispersed fluorocarbon polymer particles. (Col. 2, lines 19-24). The coating composition of the Schramm patent is designed for application on solid metal substrates, such as "railings, window frames, door frames, doors, outdoor signs, and the like." (Col. 2, lines 29-32). The Examples of the Schramm patent disclose applications only to aluminum plates as a simulation of this designed application on solid metal substrates. (See Examples 1-5 at col. 5, line 37, through col. 9, line 6). In fact, the Schramm patent only discloses application of the coating composition to solid metal substrates. The Schramm patent does not disclose attachment of any other covering layers or coatings to the coating composition after application of the coating composition to the solid metal substrate.

Again, in an attempt to arrive at an art-based explanation that replicates requirements of claim 1, the Examiner suggests it would be obvious to substitute the Schramm coating in place of the top coat disclosed in the Spain patent.. However, the Spain patent and the Schramm patent do not support the Examiner's suggested substitution.

First, the Examiner seeks to insert the Schramm coating that is disclosed only for application to solid metal substrates in place of the Spain top coat 38 in a plastic siding application. There is no teaching, suggestion, or assurance in either the Schramm patent or the Spain patent that such a substitution will work. Neither the Schramm patent nor the Spain patent provides an answer to this question raised by the Examiner's proposed substitution.

Additionally, the Spain patent requires easy release of the matte release coat 24 from the top coat 38. The coating of the Schramm patent has a different formulation from the coating of the Spain patent, despite some common components. There is no teaching, suggestion, or assurance in either the Schramm patent or the Spain patent that substitution of the Schramm coating in place of the Spain top coat 38 would allow the matte release coat 24 to easily release from the Spain coating, as required by the Spain patent. Neither the Schramm patent nor the Spain patent provides an answer to this question about whether the Schramm coating, if substituted in place of the top coat 38 per the Examiner's suggestion, would allow the matte release coat 24 to easily release from the Spain coating, as required by the Spain patent.

Another question remains. As noted above, the Spain patent discloses that after the top coat 38 is applied onto the matte release coat 24, the dried, coated film 41 is wound onto a rewind roll 42. (Col. 6, lines 6-40). If the Examiner's suggested substitution of the Schramm coating for the top coat 38 of the Spain patent were undertaken, the question remains whether the Schramm coating would be flexible enough to function as the top coat 38 does by allowing the dried, coated film of the Spain patent to be rolled onto the roll 42 without damaging the Spain coating. The Schramm patent does not answer the question about whether the Schramm coating is flexible enough to support this action. Instead, as noted above, the Schramm coating is disclosed only for application to solid metal substrates, such as the aluminum plates disclosed in Examples 1-5 of the Schramm patent. Such applications and durability under such applications shed no light on whether the Schramm coating would be flexible enough to be rolled onto the roll 42 without damaging the Schramm coating.

The absence of answers in the Schramm patent and the Spain patent regarding the various questions raised by the Examiner's proposed substitution of the Schramm coating in place of the top coat 38 of the Spain patent demonstrates the speculative nature of the Examiner's proposed substitution. More information is needed, but the art at issue does not provide that information.. In essence, the Examiner's alleged obviousness becomes an "obvious to try" scenario, which highlights the lack of motivation to actually make the substitution the Examiner suggests. "Obvious to try" has long been held not to constitute obviousness. In re O'Farrell, 853 F.2d 894, 903, 7 USPQ2d 1673, 1680-81 (Fed. Cir. 1988).

The Examiner seeks to rely on the notion that a general incentive, namely allegedly beneficial properties of the Schramm coating ("it has excellent weatherability and will not crack, craze, chip or peel even after long periods of outdoor exposure") provide motivation to substitute the Schramm coating in place of the top coat 38 of the Spain patent. However, "a general incentive does not make obvious a particular result . . . ." In Re Deuel, 51 F.3d 1552; 34 U.S.P.Q.2D 1210 (Fed. Cir 1995). Here, since the answers to the noted questions are lacking, objective evidence supporting the Examiner's obviousness allegation is also lacking. Therefore, it is clear the Examiner's obviousness rejection is based on pure speculation, is consequently in error, and should thus be withdrawn. In re Rijckaert, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) (the PTO's assertion that the claimed relationship "is 'probably satisfied' by the prior art is speculative and therefore does not establish a prima facie case of unpatentability.").

Next, we consider claim 2 that reads as follows:

> *2. The water-repellant sheet of claim 1, wherein the water-repellent layer exhibits a certain cohesive force, and wherein the adhesive force between the water-repellent layer and the protective film is greater than the cohesive force.*

Here, even if the Schramm coating were substituted in place of the Spain top coat 38 in accordance with the Examiner's suggestion, the resulting combination would clearly not equal the present invention, as defined in claim 2.

The Spain patent specifies that the formulation of the matte release coat 24 allows the matte release coat 24 to freely release from the top coat 38 upon stripping of the carrier film 26/matte release coat 24 from the top coat 38: (Col. 9, lines 12-16, and col. 10, lines 21-24). Such free release illustrates that even if the top coat 38 were the Schramm coating and even if the carrier film 26 of the Spain patent were adhesively attached to the top coat 38 (which it is not), the resulting combination would not exhibit the adhesive force/cohesive force relationship required by claim 2. Specifically, due to the free releasability of the matte release coat 24 from the top coat 38, without any mention of top coat 38 damage or fracture upon matte release coat 24 release, it is clear any adhesive force between the carrier film 26 and the top coat 38 is less than the cohesive force within the top coat 38.

The Examiner is further reminded that the Schramm patent does not disclose anything about the cohesive strength or force within the Schramm coating. Any assertions by the Examiner to the contrary about the cohesive strength or force within the Schramm coating would clearly be based on speculation. Obviousness rejections based on pure speculation are inadequate to establish obviousness. In re Rijckaert, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).

Next, we consider claim 3 that reads as follows:

> *3. (Amended) The water repellent sheet of claim 1 wherein the water repellent layer comprises water-repellant material, the protective film capable of being removed from the water-repellent layer such that the water-repellent layer remains disposed on the base layer and is capable of preventing snow adhesion while some of the water-repellent material remains on the protective film.*

Here, even if the Schramm coating were substituted in place of the Spain top coat 38 in accordance with the Examiner's suggestion, the resulting combination would clearly not equal the present invention, as defined in claim 3.

The Spain patent specifies the formulation of the matte release coat 24 allows the matte release coat 24 to freely release from the top coat 38 upon stripping of the carrier film 26/matte release coat 24 from the top coat 38: (Col. 9, lines 12-16, and col. 10, lines 21-24). Such free release illustrates that even if the top coat 38 were the Schramm coating and even if the carrier film 26 of the Spain patent were adhesively attached to the top coat 38 (which it is not) , the resulting combination would not exhibit the capability required by claim 3. Specifically, due to the free releasability of the matte release coat 24 from the top coat 38, without any mention of top coat 38 damage or fracture upon matte release coat 24 release, it is clear no portion of the top coat would remain on either the matte release coat 24 or the carrier film 26 upon stripping of the carrier film 26/matte release coat 24 from the top coat 38.

Claims 1-3 are each believed allowable. Claims 2 and 3 are each believed allowable for an additional reason, since claims 2 and 3 each depend from allowable claim 1. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of claims 1-3 under 35 US.C. §103(a) based on the Schramm patent and the Spain patent, and that claims 1-3 each be allowed.

Claim Rejection Under 35 U.S.C §102 or 35 U.S.C §103 Based on the Schramm patent

In the Office Action, the Examiner rejected claim 3 under 35 U.S.C §102 as allegedly being anticipated by the Schramm patent. Alternatively, the Examiner rejected claim 3 under 35 U.S.C. §103(a) as allegedly being obvious considering the Schramm patent. In support of this rejection, the Examiner stated:

> Claim 3 is rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Schramm (U.S. Patent 3,859,120).
>
> In the embodiment of Example 3, a coating composition comprising fluorocarbon-based polymer binder (Fluoropolymer B) mixed with a fluorocarbon polymer dispersion is applied to a substrate (column 6, line 59 - column 7, line 40). Since this coating is composed of the same materials as the water-repellent layer of the instant claims, it should inherently prevent snow adhesion.
>
> The article of Schramm does not comprise a protective layer as recited in instant claim 1. However, the article of claim 3 is formed by removing the claimed protective layer, therefore, the invention of claim 3 also does not comprise a protective layer.

> The limitation that the sheet of claim 3 is formed by removing a protective layer is a product-by-process type of limitation. When the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the applicant to present evidence from which the examiner could reasonably conclude that the claimed product differs in kind from those of the part art. *In re Brown*, 459 F. 2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). This burden is NOT discharged solely because the product was derived from a process not known to the prior art. *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). Furthermore, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985) and MPEP § 2113. In this case, the article of Schramm appears to be the same as that of instant claim 3 since the coating layer contains all the structural limitations of the instant water-repellent layer. Therefore, the burden is on the application to conclusively demonstrate that the article of claim 3 is materially different from that of Schramm.

Despite the Examiner's comments in support of this rejection, the Schramm patent does not disclose each and every detail required by claim 3 and consequently does not anticipate claim 3. Additionally, the Schramm patent does not teach, suggest, disclose, or render obvious the invention of the above-identified application, as defined in claim 3.

Claim 3, which depends from independent claim 1, reads as follows:

> *3. (Amended) The water repellent sheet of claim 1 wherein the water repellent layer comprises water-repellant material, the protective film capable of being removed from the water-repellent layer such that the water-repellent layer remains disposed on the base layer and is capable of preventing snow adhesion while some of the water-repellent material remains on the protective film.*

As an initial matter, the Examiner's comments about the alleged product-by-process nature of claim 3 are moot, since claim 3 now instead recites a capability of removing the protective film, rather than actually removing the protective film.

The Schramm patent does not anticipate claim 3, since the Schramm patent does not disclose the protective film required by claim 3. Consequently, the Schramm patent cannot disclose the claimed protective film removal capability. Additionally, the Schramm patent does not disclose the achievable effects if the protective film were removed in accordance with the stated capability.

Also, the Schramm patent does not teach, suggest, or make obvious the invention of the above-identified application, as defined in claim 3. First, the Schramm patent does not teach or suggest the protective film required by claim 3. Consequently, the Schramm patent cannot teach, suggest, or make obvious the claimed protective film removal capability, Additionally, the Schramm patent does not teach, suggest, or make obvious the achievable effects if the protective film were removed in accordance with the stated capability.

Claim 3 is believed allowable. Claim 3 is also believed allowable for an additional reason, since claim 3 depends from allowable claim 1. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claim 3 under 35 U.S.C. §102(b) and under 35 U.S.C. §103(a) based on the Schramm patent, and that claim 3 be allowed.

New Claims Added by Applicants

As indicated above, new claims 5-15 have been added to the above-identified application. Support for new claims 5-15 is believed to exist throughout the application. Consequently, consideration and allowance of new claims 5-21 is respectfully requested.

CONCLUSION

Claims 1-3 and 5-15 are believed allowable. Therefore, Applicants respectfully request that the Examiner reconsider and allow claims 1-3 and respectfully request that the Examiner consider and allow new claims 5-15. The Examiner is invited to contact Applicants' below-named attorney to discuss any aspect of this application and advance this application to allowance.

Respectfully submitted,
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